

CLAIMS

1. Method for managing the resources of a computer
 5 communication means for processing a computer document stored on a
 processing control device connected by said communication means to at least
 one processing device, characterised in that it includes a step of selecting at
 least one processing device of said communication means as a function of a
 first group of criteria relating to the functioning of said device, and a second
 10 group of criteria relating to its geographical situation.

2. Management method according to Claim 1, characterised in
 that it also includes, after the selection step, a step of choosing (E8) a
 processing device amongst those selected.

3. Management method according to Claim 1 or 2, characterised
 15 in that said group of operating criteria includes parameters relating to the
 configuration capability of the processing device.

4. Management method according to Claim 3, characterised in
 that the value of said parameters relating to the configuration capability is
 determined as a function of the content of said document to be processed.

5. Management method according to any one of the preceding
 20 claims, characterised in that said group of operating criteria includes
 characteristics chosen in particular from amongst the type of processing device,
 the ability to process a colour file, the ability to process a file on both sides of
 the paper, the maximum resolution factor, the number of grey levels or the
 25 number of colour shades.

6. Management method according to any one of the preceding
 claims, characterised in that said group of operating criteria includes a
 maximum number of documents awaiting processing.

7. Management method according to Claim 1 or 2, characterised
 30 in that said group of geographical situation criteria includes characteristics
 chosen in particular from amongst the place where said processing device is
 situated, its proximity with respect to a given place, its distance with respect to a
 given place, or its distance with respect to the control device.

8. Method according to any one of the preceding claims, characterised in that said communication means is a local wireless network.

5 9. Method according to Claim 7 or 8, characterised in that, in order to determine the place where the processing device is situated, its proximity with respect to a given place, its distance with respect to a given place, or its distance with respect to the control device, when there are not sufficient base stations to do this, at least one hybrid station operating in mobile station mode is switched to base station operating mode.

10. Method according to Claim 9, characterised in that:

10 - a search operation (303) is performed, consisting of seeking the presence of at least one base station (SB) in the environment of said processing device;

- if the presence of at least one base station (SB) is detected, for each base station detected, a measuring operation (311) is performed, 15 consisting of measuring the position of said processing device and determining the precision ("*Interm_precision*") of the measurement made; and, if the precision ("*Interm_precision*") of the measurement made is less than a predetermined value ("*Precision*"):

20 - a change of mode request operation is performed, consisting of requesting a hybrid station operating in mobile station mode to switch into base station operating mode; and

- a switching operation is performed, consisting, for said hybrid station, of switching from mobile station operating mode to base station operating mode, in order to constitute a new base station.

25 11. Method according to any one of Claims 1 to 7, characterised in that said communication means is a local cabled network of the Ethernet type.

30 12. Management method according to any one of Claims 1 to 11, characterised in that it also includes, after the choosing step, a step of automatic configuration of the processing device.

13. Management method according to Claim 12, characterised in that the configuration step is performed as a function of the content of said document to be processed.

5 14. Management method according to Claim 12 or 13, characterised in that it also includes a step of analysing (E3) the content of said document to be processed before the configuration step.

15. Management method according to Claim 14, characterised in that it also includes a step of translating the document to be processed in the form of graphical instructions before the analysis step (E3).

10 16. Management method according to Claim 15, characterised in that the analysis step (E3) is performed using said graphical instructions.

17. Management method according to any one of Claims 12 to 16, characterised in that it also includes a step (E8) of choosing a correct configuration of the processing device.

15 18. Management method according to any one of Claims 14 to 17, characterised in that the choosing step (E8) is performed using the results of the analysis of the document to be processed.

19. Management method according to any one of Claims 14 to 18, characterised in that it also includes a step of obtaining additional data (E7) before the step of choosing a correct configuration.

20 20. Management method according to Claim 19, characterised in that said obtaining step (E7) is performed by reading operating parameters of said processing device amongst at least a type of printing ink used and a type of paper.

25 21. Management method according to Claim 19 or 20, characterised in that said obtaining step (E7) is performed by interrogating a user on operating parameters of said processing device amongst at least a draft operating mode, a type of printing ink and a type of paper.

30 22. Management method according to any one of the preceding claims, characterised in that the content of said computer document is grouped together by page.

23. Management method according to any one of Claims 14 to 22, characterised in that the analysis step (E3) includes steps according to which:

- it is sought (E31) whether or not open graphical functions exist;
- it is sought (E33) whether or not closed graphical functions exist;
- it is sought (E35) whether or not representations in bitmap mode exist;
- it is sought (E37) whether or not text functions exist.

24. Management method according to any one of Claims 17 to 23, characterised in that the configuration choosing step is adapted to choose said correct configuration amongst a set of prerecorded configurations for said processing device and dependent on the content of the document.

25. Management method according to any one of Claims 17 to 23, characterised in that the configuration choosing step is adapted to choose said correct configuration amongst a set of prerecorded configurations for said processing device and dependent on the content of the document and additional data obtained at said obtaining step.

26. Management method according to Claim 25, characterised in that said set of prerecorded configurations includes at least a configuration for a draft operating mode, a configuration for the processing of images, a configuration for the processing of graphics, and a configuration for the processing of a text.

27. Management method according to Claim 26, characterised in that said set of prerecorded configurations includes several subsets containing a configuration for a draft operating mode, a configuration for the processing of images, a configuration for the processing of graphics, and a configuration for the processing of a text, each subset being defined for a unique combination of printing ink and paper type used.

28. Management method according to any one of the preceding claims, characterised in that said processing includes a printing of said computer document, the processing device being a printer.

29. Management method according to any one of Claims 1 to 27, characterised in that said processing includes a transfer of said computer document over a telephone communication network, the processing device being a modem or a facsimile machine.

5 30. Device for managing the resources of a computer communication means for processing a computer document stored on a processing control device connected by said communication means to at least one processing device, characterised in that it has means of selecting at least one processing device of said communication means as a function of a first
10 group of criteria relating to the functioning of said device, and a second group of criteria relating to its geographical situation.

31. Management device according to Claim 30, characterised in that it also includes means of choosing a processing device amongst those selected by said selection means.

15 32. Management device according to Claim 30 or 31, characterised in that said group of operating criteria includes parameters relating to the configuration capability of the processing device.

33. Management device according to Claim 32, characterised in that the value of said parameters relating to the configuration capability is
20 determined as a function of the content of said document to be processed.

34. Management device according to any one of Claims 30 to 33, characterised in that said group of operating criteria includes characteristics chosen in particular from amongst the type of processing device, the ability to process a colour file, the ability to process a file on both sides of the paper, the
25 maximum resolution factor, the number of grey levels or the number of colour shades.

35. Management device according to any one of Claims 30 to 34, characterised in that said group of operating criteria includes a maximum number of documents awaiting processing.

30 36. Management device according to Claim 30 or 31, characterised in that said group of geographical situation criteria includes characteristics chosen in particular from amongst the place where said

processing device is situated, its proximity with respect to a given place, its distance with respect to a given place, or its distance with respect to the control device.

37. Device according to any one of Claims 30 to 36, characterised
5 in that said communication means is a local wireless network.

38. Device according to Claim 36 or 37, characterised in that it
also has switching means, for switching at least one hybrid station operating in
mobile station mode to base station operating mode, in order to determine the
place where the processing device is situated, its proximity with respect to a
10 given place, its distance with respect to a given place, or its distance with
respect to the control device, when there are not sufficient base stations to do
this.

39. Device according to Claim 38, characterised in that it has:

- seeking means, for seeking the presence of at least one base
15 station (SB) in the environment of said processing device;

- measuring means for, if the presence of at least one base station
(SB) is detected, for each base station detected, measuring the position of said
processing device and determining the precision ("*Interm_precision*") of the
measurement made;

20 - means of requesting change of mode, for requesting a hybrid
station operating in mobile station mode to switch into base station operating
mode, if the precision ("*Interm_precision*") of the measurement made is less
than a predetermined value ("*Precision*");

said switching means enabling said hybrid station to switch from mobile station
25 operating mode to base station operating mode, in order to constitute a new
base station.

40. Device according to any one of Claims 30 to 36, characterised
in that said communication mode is a local cabled network of the Ethernet type.

41. Management device according to any one of Claims 30 to 40,
30 characterised in that it also has means for the automatic configuration of the
processing device.

42. Management device according to Claim 41, characterised in that the configuration means act as a function of the content of said document to be processed.

5 43. Management device according to Claim 41 or 42, characterised in that it also has means of analysing the content of said document to be processed.

44. Management device according to Claim 43, characterised in that it also has means of translating the document to be processed in the form of graphical instructions.

10 45. Management device according to Claim 44, characterised in that the analysis means act using said graphical instructions.

46. Management device according to any one of Claims 41 to 45, characterised in that it also has means of choosing a correct configuration of the processing device.

15 47. Management device according to any one of Claims 43 to 46, characterised in that the choosing means act using the results of the analysis of the document to be processed.

48. Management device according to any one of Claims 43 to 47, characterised in that it also has means of obtaining additional data.

20 49. Management device according to Claim 48, characterised in that said obtaining means act using the reading of operating parameters of said processing device amongst at least a type of printing ink used and a type of paper.

25 50. Management device according to Claim 48 or 49, characterised in that said obtaining means act using the interrogation of a user on operating parameters of said processing device amongst at least a draft operating mode, a type of printing ink and a type of paper.

30 51. Management device according to any one of Claims 30 to 50, characterised in that the content of said computer document is grouped together by page.

52. Management device according to any one of Claims 43 to 51, characterised in that the analysis means include:

- first seeking means, for seeking whether or not open graphical functions exist;

- second seeking means, for seeking whether or not closed graphical functions exist;

5 - third seeking means, for seeking whether or not bitmap mode representations exist;

- fourth seeking means, for seeking whether or not text functions exist.

10 53. Management device according to any one of Claims 46 to 52, characterised in that the configuration choosing means are adapted to choose said correct configuration from amongst a set of prerecorded configurations for said processing device and dependent on the content of the document.

15 54. Management device according to any one of Claims 46 to 52, characterised in that the configuration choosing means are adapted to choose said correct configuration amongst a set of prerecorded configurations for said processing device and dependent on the content of the document and additional data supplied by said obtaining means.

20 55. Management device according to Claim 54, characterised in that said set of prerecorded configurations includes at least a configuration for a draft operating mode, a configuration for the processing of images, a configuration for the processing of graphics, and a configuration for the processing of a text.

25 56. Management device according to Claim 55, characterised in that said set of prerecorded configurations includes several subsets containing a configuration for a draft operating mode, a configuration for the processing of images, a configuration for the processing of graphics, and a configuration for the processing of a text, each subset being defined for a unique combination of type of printing ink and paper used.

30 57. Management device according to any one of Claims 30 to 56, characterised in that said processing includes a printing of said computer document, the processing device being a printer.

58. Management device according to any one of Claims 30 to 56, characterised in that said processing includes a transfer of said computer document over a telephone communication network, the processing device being a modem or facsimile machine.

5 59. Mobile station in a wireless telecommunications network, characterised in that it has means adapted to implement a management method according to any one of Claims 1 to 29.

60. Mobile station in a wireless telecommunications network, characterised in that it has a management device according to any one of
10 Claims 30 to 58.

61. Base station in a wireless telecommunications network, characterised in that it has means adapted to implement a management method according to any one of Claims 1 to 29.

62. Base station in a wireless telecommunications network, characterised in that it has a management device according to any one of
15 Claims 30 to 58.

63. Wireless telecommunications network, characterised in that it has means adapted to implement a management method according to any one of Claims 1 to 29.

20 64. Wireless telecommunications network, characterised in that it has a management device according to any of Claims 30 to 58.

65. Information storage means which can be read by a computer or microprocessor storing instructions of a computer program, characterised in that it implements a management method according to any of claims 1 to 29.

25 66. Information storage means which is removable, partially or totally, and which can be read by a computer or microprocessor storing instructions of a computer program, characterised in that it implements a management method according to any of claims 1 to 29.

30 67. Computer program, characterised in that it contains sequences of instructions for implementing a management method according to any of claims 1 to 29.